

## REMARKS

The final Office Action dated June 17, 2010 (referred to hereinafter as “the Office Action”), has been received and reviewed. Claims 29-31, 33-35 and 37-39 are pending in the application, of which claims 29-31, 33-35 and 37-39 are currently under examination. Claims 1-28, 32, 36 and 40 have been previously canceled. No claims have been amended. No new matter has been added.

Applicant respectfully requests reconsideration of the application in light of the remarks below.

### *Claim Rejections - 35 U.S.C. § 103*

In the Office Action, claims 29-31, 33-35 and 37-39 stand rejected as being unpatentable over U.S. Patent No. 6,515,975 to Chheda *et al.* (“Chheda”) in view of U.S. Patent No. 6,154,659 to Jalali *et al.* (“Jalali”) and further in view of U.S. Patent No. 6,567,391 to Moon (“Moon”). Applicant respectfully traverses this rejection, as hereinafter set forth.

To establish a *prima facie* case of obviousness the prior art reference (or references when combined) **must teach or suggest all the claim limitations**. *In re Royka*, 490 F.2d 981, 985 (CCPA 1974); *see also* MPEP § 2143.03. Additionally, the Examiner must determine whether there is “an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1740-1741, 167 L.Ed.2d 705, 75 USLW 4289, 82 U.S.P.Q.2d 1385 (2007). Further, rejections on obviousness grounds “cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id* at 1741, quoting *In re Kahn*, 441, F.3d 977, 988 (Fed. Cir. 2006). Finally, to establish a *prima facie* case of obviousness there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). Furthermore, the reason that would have prompted the combination and the reasonable expectation of success must be found in the prior art, common knowledge, or the nature of the problem itself, and not based on the Applicant’s disclosure. *DyStar Textilfarben GmbH & Co. Deutschland KG v. C. H. Patrick Co.*, 464 F.3d 1356, 1367

(Fed. Cir. 2006); MPEP § 2144. Underlying the obvious determination is the fact that statutorily prohibited hindsight cannot be used. *KSR*, 127 S.Ct. at 1742; *DyStar*, 464 F.3d at 1367.

Applicant respectfully submits that the 35 U.S.C. § 103(a) obviousness rejections of claims 29-31, 33-35 and 37-39 are improper because the elements for a *prima facie* case of obviousness are not met. Specifically, the rejection fails to meet the criterion that the prior art references must teach or suggest all the claims limitations.

#### A. Independent Claims 29, 33, 37

Regarding independent claims 29, 33 and 37, Applicant's independent claims 29, 33 and 37 include claim limitations not taught or suggested in the cited references. Applicant's independent claims 29, 33 and 37, each recite, in part, "**increasing a target signal-to-noise ratio (SNR) of a reverse link pilot channel** carrying at least one of the power control signals for at least one of the plurality of base station transceivers when the quality of the at least one of the power control signals for the at least one of the plurality of base station transceivers is below a predefined target signal quality," which is not taught or suggested in the cited references. Generally, Applicant claims "increasing a target signal-to-noise ratio (SNR) **of a reverse link pilot channel**" while the Office Action relies upon the teaching in Jalali of adjusting a target  $E_s/N_0$  ratio of a **forward link**.

Specifically, the Office Action states, in part:

Regarding claim 29 ... Regarding claim 33 ... Regarding claim 37, ...  
Jalali clearly shows and discloses increasing a target signal-to-noise ratio (SNR) of a reverse pilot channel carrying at least one of the power control signals for at least one of the plurality of base station transceivers when the quality of the at least one of the power control signals for the at least one of the plurality of base station transceivers is below a predefined target signal quality (in order to modify the target  $E_{sub.s}/N_{sub.o}$  the quality of each received frame is determined; if the particular received frame was bad, the target is increased a predetermined amount; a reverse link pilot channel is employed to perform coherent demodulation of the reverse power control signaling; power change commands are transmitted using a reverse power control signaling [fig. 1, col. 6, lines 38-66]). (Office Action, pp. 3-4, 6-7, and 10; emphasis added).

Applicant respectfully disagrees with the characterization of Jalali stated in the Office Action. Jalali states,

“Referring now to FIG. 1, the power control system 100 is for determining whether to transmit a power up or power down command to the base station. The radiotelephone receives information from the base station. . . The radiotelephone demodulates (step 101) the information. The  $E_s/N_0$  is estimated. . . The estimated  $E_s/N_0$  is compared (step 110) to a target  $E_s/N_0$ . The target  $E_s/N_0$  is adjusted on a frame by frame basis. . . . If the estimated  $E_s/N_0$  is less than the target  $E_s/N_0$ , the radiotelephone instructs (step 120) the base station to power up by a predetermined amount. If the measured  $E_s/N_0$  is greater than the target  $E_s/N_0$ , the radiotelephone instructs (step 120) the base station to power down by a predetermined amount. (Jalali, col. 6, lines 18 - 52; emphasis added).

The radiotelephone of Jalali compares the  $E_s/N_0$  ratio estimated from a **forward link** communication from the base station to the radiotelephone with a target  $E_s/N_0$  ratio. Based on the result, the radiotelephone instructs the base station to change its transmit power to adjust the power level on future forward link communications. This is opposite the claim limitation, “increasing a target signal-to-noise ratio (SNR) of a reverse link pilot channel.”

Jalali does not teach “increasing a target signal-to-noise ratio (SNR) of a reverse link pilot channel” at all. Instead Jalali teaches,

“The power change commands, in the preferred embodiment, are transmitted using a reverse power control signaling channel.” (Jalali, col. 6, lines 56-58).

Transmitting power change commands for the forward link over a reverse power control signaling channel from the radiotelephone to the base station does not teach “increasing a target signal-to-noise ratio (SNR) of a reverse link pilot channel.”

Jalali also teaches,

“The preferred embodiment employs a reverse link pilot channel that the base station uses to perform coherent demodulation of the reverse power control signaling channel.”

Similarly, employing a reverse link pilot channel for a base station to use to perform coherent modulation of the reverse power control signaling channel does not teach “increasing a target signal-to-noise ratio (SNR) of a reverse link pilot channel” as claimed.

In response to Applicants’ arguments, the Office Action asserts, “the reverse link pilot channel of the Jalali reference transmits the power up or down command to the base station . . . after its target  $E_{s.sub.s}/N_{s.sub.o}$  is modified, either increase or decreased, reading on the claimed

“increasing a target signal-to-noise ratio of a reverse link pilot channel,” . . . “ (Office Action, p. 2, lines 8-13). Applicants respectfully disagree. As discussed above, the target E.sub.s/N.sub.o taught by Jalali refers to the E.sub.s/N.sub.o ratio of a communication over the forward link, not the reverse link. *See* Jalali, col. 6, lines 17-37.

In contrast, the Specification discloses that the target SNR of reverse link channels is adjusted. Specifically, the Specification states:

“The presently disclosed embodiments provide a method of balancing the forward link power by increasing the target SNR of the forward link PC bits transmitted to all the BTSs 106, 108 so that all BTSs 106,108 involved in a soft handoff receive the PC bits correctly” (Specification, p.11, lines 9-12).

The Specification discloses that the forward link PC bits are contained in the reverse link power control sub-channel (RPCSCH). *See* Specification, p. 11, lines 31-32. The Specification further discloses that the transmit power levels of the reverse link pilot channel and the RPCSCH are identical because they are transmitted on the same channel. *See* Specification, p. 12, lines 5-7. Thus, the Specification clearly discloses that the target SNR of a reverse link pilot channel itself is increased.

Although Jalali teaches transmitting power change commands over a reverse link pilot channel, the power change is implemented on the forward link, not the reverse link. Jalali simply does not teach “increasing a target signal to noise ratio of a reverse link pilot channel” as claimed. At least for this reason Jalali fails to form the basis of a proper rejection of any of claims 29, 33, and 37.

Applicant respectfully submits that none of Chheda, Jalali, and Moon, either individually nor in any proper combination, teach or suggest Applicant’s invention as presently claimed in independent claims 29, 33 and 37, which each recite, in part, “***increasing a target signal-to-noise ratio (SNR) of a reverse link pilot channel*** carrying at least one of the power control signals for at least one of the plurality of base station transceivers when the quality of the at least one of the power control signals for the at least one of the plurality of base station transceivers is below a predefined target signal quality.”

Therefore, since none of Chheda, Jalali, and Moon teach or suggest at least “***increasing a target signal-to-noise ratio (SNR) of a reverse link pilot channel*** carrying at least one of the power control signals for at least one of the plurality of base station transceivers when the quality

of the at least one of the power control signals for the at least one of the plurality of base station transceivers is below a predefined target signal quality” as claimed by Applicant, these references, individually or in any proper combination, cannot render obvious, under 35 U.S.C. §103, Applicant’s invention as presently claimed in independent claims 29, 33 and 37. Accordingly, Applicant respectfully requests reconsideration of the rejections under 35 U.S.C. §103 and allowance of independent claims 29, 33 and 37.

B. Dependent Claims 30, 31, 34, 35, 38 and 39

The nonobviousness of independent claim 29 precludes a rejection of claims 30 and 31, which depend therefrom, because a dependent claim is obvious only if the independent claim from which it depends is obvious. See In re Fine, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), see also MPEP § 2143.03. Therefore, Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a) obviousness rejection to independent claim 29 and claims 30 and 31 which depend therefrom.

The nonobviousness of independent claim 33 precludes a rejection of claims 34 and 35 which depend therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. See In re Fine, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), see also MPEP § 2143.03. Therefore, Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a) obviousness rejection to independent claim 33 and claims 34 and 35 which depend therefrom.

The nonobviousness of independent claim 37 precludes a rejection of claims 38 and 39 which depend therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. See In re Fine, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), see also MPEP § 2143.03. Therefore, Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a) obviousness rejection to independent claim 37 and claims 38 and 39 which depend therefrom.

### CONCLUSION

In view of the foregoing, Applicants respectfully submit that all pending claims in the present application are in a condition for allowance, which is earnestly solicited. Should any issues remain unresolved, the Examiner is cordially invited to telephone the undersigned at the number provided below.

The Commissioner is authorized to charge any fees or overpayments that may be due with this response to Deposit Account No. **17-0026**.

Respectfully submitted,

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